

ABSTRACT

An imaging system implements digital correlated double sampling (CDS) using dual channels. One channel converts reset voltages from pixel sensors to digital reset values, while the other channel converts integrated voltages from pixel sensors to digital integrated values. Timing of an imaging process with digital CDS can accordingly be the same as the timing for an imaging process without digital CDS, regardless of the length of the exposure time. Accordingly, the imaging time and the frame rate for moving images do not suffer when digital CDS is used to improve image quality.